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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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### Office Action Summary

**Application No.**

10/519,032

**Applicant(s)**

ANOUAR ET AL.

**Examiner**

Mia M. Thomas

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-6 and 8-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 8-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/27/09 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date 04/17/09.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application.
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04 February 2009 has been entered.

### ***Response to Amendment***

2. This Office Action is responsive to applicant's remarks received on 04 February 2009. Claims 2-6 and 8-33 are pending for further examination. Applicant has amended independent claim 2 by incorporating the features of claim 7 (now canceled). Dependent claim 8 is amended to depend from claim 2, in view of the cancellation of claim 7. Entry of the amendments has been granted. A complete response to applicant's remarks follows herewith this response.

**\*Examiner's Note:** Examiner notes that as currently pending, claim 33 depends from "any one of claims 3 through 8." Claim 7 is currently canceled. It is believed/assumed by the Examiner that claim 33 is meant to be currently amended to reflect that Claim 7 has been omitted from consideration with respect to claim analysis and dependency from a canceled claim and this will be assumed for examination purposes however, appropriate correction/clarification is required for proper claim interpretation.

***Drawings***

3. Figures 1-3 are objected to as depicting a block diagram without "readily identifiable" descriptors of each block, as required by 37 CFR 1.84(n). Rule 84(n) requires "labeled representations" of graphical symbols, such as blocks; and any that are "not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable." In the case of figure 1-3, the blocks are not readily identifiable per se and therefore require the insertion of text that identifies the function of that block. That is, each vacant block should be provided with a corresponding label identifying its function or purpose.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 101***

4. Claims 2-6, 8-33 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions<sup>2</sup> indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim recites a series of steps or acts to be performed, the claim neither transforms underlying subject matter nor is positively tied to another statutory category that accomplishes the claimed method steps, and therefore does not qualify as a statutory process. The Applicant has provided no explicit and deliberate definitions of "receiving", "analyzing" or "responding" to limit the steps to test a currency item as recited at independent claim 2.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regards to the limitation "the resolution" at line 3, bridging line 4, of claim 2, which resolution is applicant referring to? Is the applicant referring to "the resolution (R)" at line 2 or "a different resolution" at line 3? Appropriate correction/clarification is required for proper claim analysis. With regards to the limitation "measured values" as recited at line 5 of claim 2, which

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

measured values is applicant referring to? Is applicant referring to all measured values or "a plurality of measurements of the currency item at a resolution (R)" or "the derived values at a different resolution"?

7. Claim 2 recites the limitation "the set of spectral components" at line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim. It will be assumed for examination purposes that applicant intended to recite "a subset of a set of spectral components".

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-5, 8, 13, 20, 21, 23, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardini et al (US 6438262 B1) in combination with Baudat et al. (US 6899215 B2)

**Regarding Claim 2:** (Currently amended-As best understood by the Examiner) Bernardini teaches a method of testing a currency item comprising: ("Method and apparatus for validating banknotes." at abstract)

deriving a plurality of measurements of the currency item at a resolution (R) (Refer to the Validator "2"; "the LEDs 10 and photodiodes 12-15 of each sensor pair are in register."; "The LEDs 10 may each be provided with a lens and/or a collimating slit, and the photodiodes 12-15

may be provided with similar optical means to ensure the sensing of a beam of a desired resolution.", further see column 5) processing the measurements to derive values at a different resolution, wherein the resolution is reduced in the spectral domain("The LEDs 10 may each be provided with a lens and/or a collimating slit, and the photodiodes 12-15 may be provided with similar optical means to ensure the sensing of a beam of a desired resolution.", further see column 5) the method comprising filtering a signal of the measured values in the spectral domain to reduce the resolution in the spectral domain by taking a subset of the set of spectral components (The LEDs 10 and/or photodiodes 12-15 may also be provided with filters to ensure sensing at a predetermined wavelength or wavelengths." at column 6, line 7)

Baudat teaches deriving a feature vector using the subset of spectral components ("The measured features are assembled into a feature vector having  $n$  elements, where each element corresponds to a measured feature by the processing system 4." at column 12, line 56+)

Bernardini and Baudat are combinable because they are in the same field of imaging applications, specifically with respect to reading paper currency. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to deriving a feature vector using the subset of spectral components.

The suggestion/motivation for doing so would have been "to apply various approaches to data that is derived from sensors for deriving measurements representative of characteristics of currency items." (Baudat)

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Bernardini and Baudat to obtain the specified claimed elements of Claim 2.

**Regarding Claim 3 (Original):** Baudat teaches the subset is of a predetermined size (Refer to column 6, and specifically "Let X and S be sets of vectors as defined above." at line 28.

**Regarding Claim 4 (Previously Presented):** Baudat teaches the spectral domain is the frequency spectrum ("In the case of the diameter and thickness sensors, a change in the inductance of each coil caused by the proximity of an inserted coin causes the frequency of the oscillator to alter, whereby a digital representation of the respective property of the coin can be derived." at column 13, line 3).

**Regarding Claim 5 (Original):** Baudat teaches the filtering excludes high frequency components ("Although the structure, positioning and orientation of each coil, and the frequency of the voltage applied thereto, are so arranged that the coil provides an output predominantly dependent upon a particular one of the properties of conductivity, diameter and thickness, it will be appreciated that each measurement will be affected to some extent by other coin properties." at column 13, line 7)

**Regarding Claim 8: (Currently Amended)** Baudat teaches processing the feature vector using a neural network, including a back propagation network or an LVQ network (Refer to column 10, lines 49+, equation 18 and column 3, lines 43+).



**Regarding Claim 13:** (Previously Presented) Baudat teaches involving a method of reconstituting a sampled signal (Refer to column 4, line 17-20 and equation 2).

**Regarding Claim 20:** (Previously Presented) Bernardini teaches validating a currency item ("The increased transmissivity of the banknote in the infrared region is utilized to detect the presence of such windows to validate the banknote." at abstract).

**Regarding Claim 21:** (Previously Presented) Baudat teaches denominating a currency item ("If the sample is identified as belonging to an acceptable denomination, then it is accepted and the corresponding value is credited. If the sample is identified as belonging to a known counterfeit group, it is rejected." at column 13, line 45).

**Regarding Claim 23:** (Previously Presented) Baudat teaches testing a coin ("In this specification, the terms currency and currency items are intended to include coins, tokens and the like, banknotes and bills, other value sheets such as cheques, vouchers, bonds, and includes both genuine items and counterfeits, such as slugs and washers." at column 1, line 4).

**Regarding Claim 33:** (Previously Presented) Baudat teaches a currency tester adapted to perform a method as claimed in any one of claims 3 through 8 ("The invention relates to currency validators and methods for adapting and operating currency validators. In this specification, the terms currency and currency items are intended to include coins, tokens and the like, banknotes and bills, other value sheets such as cheques, vouchers, bonds, and includes both genuine items and counterfeits, such as slugs and washers." at column 1, line 3+).

10. Claims 6, 19, 22, 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardini et al (US 6438262 B1) in combination with Baudat et al. (US 6899215 B2) and further in view of Raterman et al. (US 6459806 B1).

**Regarding Claim 6:** (Previously Presented) Bernardini in combination with Baudat teaches/discloses all the claimed elements as rejected above. Bernardini in combination with Baudat does not expressly teach the signal of the measured values is normalized, preferably by a mean value, before filtering.

Raterman teaches the signal of the measured values is normalized, preferably by a mean value, before filtering ("The sample data is subjected to digital processing, including a normalizing process, whereby the reflectance data represents a characteristic pattern that is unique for a given bill denomination and incorporates sufficient distinguishing features between characteristic patterns for discriminating between different currency denominations." at abstract).

Bernardini in combination with Baudat and Raterman are combinable because they are in the same field of image processing applications with specific interest in reading bank paper currency. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to perform a method so that the signal of the measured values is normalized, preferably by a mean value, before filtering.

The suggestion/motivation for doing so would have been for " The normalized reflectance data represent a characteristic pattern that is fairly unique for a given bill denomination and incorporates sufficient distinguishing features between characteristic patterns for different currency denominations so as to accurately differentiate therebetween." (at column 6, line 35, Raterman).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Raterman with the combination of Bernardini and Baudat to obtain the specified claimed elements of Claim 6.

**Regarding Claim 19:** (Currently amended) Raterman teaches the measured values are derived along a line substantially parallel to one edge of the document ("A series of such detected reflectance signals are obtained by sampling and digitally processing, under microprocessor control, the reflected light at a plurality of predefined sample points as the bill is moved across the illuminated strip with its narrow dimension parallel to the direction of transport of the bill." at column 2, line 62).

**Regarding Claim 22:** (Currently amended) Raterman teaches testing a document, banknote or other value sheet ("The pattern generated by scanning a bill under test and processing the data samples is compared with each of the prestored master patterns to generate, for each comparison, a correlation number representing the extent of similarity between corresponding ones of the plurality of data samples for the compared patterns." at abstract; refer to column 3, line 37).

**Regarding Claim 24** (Previously Presented): Raterman teaches a currency tester adapted to perform a method as claimed in claim 2 (Refer to Figure 11; "FIG. 11 is a perspective view showing currency discrimination and counting apparatus particularly adapted to and embodying the optical sensing and correlation technique of this invention." at column 5, line 1).

**Regarding Claim 25** (Original): Raterman teaches means for sensing a currency item at resolution R ("FIG. 16 is an exploded top perspective view of the optical scan-head used in the system of FIGS. 1-15." at column 5, line 16).

**Regarding Claims 26 and 27** (Original): Raterman discloses means for sensing a currency item at resolution R1 extending in a first direction and means for sensing a currency item at a resolution R2 in a second direction (Specifically Refer to Figure 20; "As best illustrated in FIG. 20, the pair of optical sensors S1 and S2 (having corresponding light sources and photo detectors which are not shown here) are co-linearly disposed within the scan head area in close parallelism with the wide dimension edges of incoming test bills." at column 27, line 55).

**Regarding Claim 28:** (Previously Presented) Baudat teaches a currency tester for denominating and/or validating currency items ("The invention relates to currency validators and methods for adapting and operating currency validators." at column 1, line 3+; " FIG. 17 is a block diagram of a coin validator.").

**Regarding Claim 29:** (Previously Presented) Baudat teaches a currency tester for testing a coin ("FIG. 17 is a block diagram of a coin validator." at column 3, line 21).

**Regarding Claim 30:** (Previously Presented) Raterman teaches a currency tester as claimed in claim 24 for testing a document, banknote or other value sheet ("An improved method and apparatus for discriminating between currency bills of different denominations uses an optical sensing and correlation technique based on the sensing of bill reflectance characteristics obtained by illuminating and scanning a bill along its narrow dimension." at abstract; "The present invention relates, in general, to currency identification. The invention relates more particularly to a method and apparatus for automatic discrimination and counting of currency bills of different denominations using light reflectivity characteristics of indices printed upon the currency bills." at column 1, line 24).

**Regarding Claim 31:** (Original) Raterman teaches a document can be fed in the transport path with skew and offset with respect to the edge of the transport path ("Accordingly, currency bills are firmly gripped under uniform pressure between the two sets of active and passive rollers within the scanhead area, thereby minimizing the possibility of bill skew and enhancing the reliability of the overall scanning and recognition process." at column 23, line 39).

**Regarding Claim 32** (Previously Presented): Raterman teaches a currency tester as claimed in claim 24 which can process a plurality of currency items of different sizes ("Preferably, the currency discrimination and counting method and apparatus of this invention is adapted to identify seven (7) different denominations of U.S. currency, i.e., \$1, \$2, \$5, \$10, \$20, \$50 and \$100. Accordingly, a master set of 16 different characteristic patterns is stored within the system memory for subsequent correlation purposes (four patterns for the \$10 bill and two patterns for each of the other denominations." at column 3, line 29).

11. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardini et al (US 6438262 B1) in combination with Baudat et al. (US 6899215 B2) and further in view of Rhoads (US 2003/0035565 A1).

**Regarding Claim 9:** (Previously Presented) Bernardini in combination with Baudat teaches/discloses all the claimed elements as rejected above. Bernardini in combination with Baudat does not expressly teach interpolation of the resolution to increase the resolution in the spatial domain.

Rhoads teaches interpolation to increase the resolution in the spatial domain (Refer to paragraph [0040], [0127], and [0128]).

Bernardini, Baudat and Rhoads are combinable because they are in the same field of image processing applications with specific interest in reading paper currency. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to interpolate the resolution to increase the resolution in the spatial domain.

The suggestion/motivation for doing so would have been "to determine the weight to be given the tweak from each region in determining what change is to be made to the line width in any given region." (at paragraph [0040], Rhoads).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Rhoads with the combination of Bernardini and Baudat to obtain the specified claimed elements of Claim 9.

**Regarding Claim 18:** (Previously Presented) Rhoads teaches removing the mean of the measured values before interpolation and reinstating it after interpolation (Refer to paragraph [0037]).

12. Claims 10 -12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardini et al (US 6438262 B1) in combination with Baudat et al. (US 6899215 B2) and further in view of Rhoads (US 2003/0035565 A1) and Raterman et al. (US 6459806 B1).

**Regarding Claim 10:** (Original) Bernardini in combination with Baudat and Rhodes teaches/discloses all the claimed elements as rejected above. Bernardini in combination with Baudat and Rhodes does not expressly teach that measurements are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction.

Raterman teaches measurements are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction ("The stored patterns correspond, respectively, to optical scans performed on the green surface of a bill along "forward" and "reverse" directions relative to the pattern printed on the bill. For bills which produce significant pattern changes when shifted slightly to the left or right such as the \$." at 3, line 19).

Bernardini in combination with Baudat, Rhodes and Raterman are combinable because they are in the same field of image processing applications with specific interest in reading bank paper currency. (See title and classification of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to take measurements that are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction.

The suggestion/motivation for doing so would have been to determine "...a master set of 16 different characteristic patterns is stored within the system memory for subsequent correlation purposes (four patterns for the \$10 bill and two patterns for each of the other denominations)," at column 3, line 33, Raterman.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Raterman with the combination of Bernardini, Baudat and Rhoads to obtain the specified claimed elements of Claim 10.

**Regarding Claim 11:** (Original) Raterman teaches the first and second directions are substantially perpendicular ("According to another feature of the present invention, the undesired doubling or overlapping of bills in the transport system is detected by the provision of a pair of optical sensors which are co-linearly disposed opposite to each other within the scan head area along a line that is perpendicular to the direction of bill flow, i.e., parallel to the edge of test bills along their wide dimensions as the bills are transported across the optical scan head." at column 27, line 47+; "In effect, the optical sensors S1 and S2 are disposed opposite



each other along a line within the scan head area which is perpendicular to the direction of bill flow." at column 27, line 60).

**Regarding Claim 12:** (Previously Presented) Rhoads teaches  $R1 < R2$  and wherein the processing increases the resolution in the first direction to approximately  $R2$  (Refer to paragraph [0037]).

13. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardini et al (US 6438262 B1) in combination with Baudat et al. (US 6899215 B2) and further in view and further in view of Wolberg---"Image Resampling"-IEEE Computer Society Press, pages 117-149.

**Regarding Claim 14:** (Previously Presented) Bernardini in combination with Baudat teaches/discloses all the claimed elements as rejected above. Bernardini in combination with Baudat does not expressly teach summing measured values weighted by a weighting function.

Wolberg teaches summing measured values weighted by a weighting function ("The spectra for the Hann and Hamming windows can be shown to be the sum of a sinc, the spectrum of  $\text{Rect}(x)$ , with two shifted counterparts: a sinc shifted to the right by  $2\pi/(n-1)$ , as well as one shifted to the left by the same amount." at page 139, Section 5.4.6.1, paragraph 2).

Bernardini, Baudat and Wolberg are combinable because they are in the same field of image processing applications with specific interest in reading paper currency. (See title and abstract of each invention).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to sum measured values weighted by a weighting function.

The suggestion/motivation for doing so would have been to "Recall that an ideal reconstruction filter will have unity gain in the pass band and zero gain in the stop band in order to transmit and suppress the signal's spectrum in these respective frequency ranges." (Wolberg-at page 125, paragraph 3).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Wolberg with the combination of Bernardini and Baudat to obtain the specified claimed elements of Claim 14.

**Regarding Claim 15:** (Original) Wolberg teaches the weighting function is of the form  $\sin(x)/x$  (Refer to Equation 5.4.25, at page 139).

**Regarding Claim 16:** (Previously Presented) Wolberg teaches using a weighting window to compensate for edge effects ("The Hann and Hamming windows are defined as (Refer to Equation 5.4.25)." at page 139).

**Regarding Claim 17:** (Original) Wolberg teaches the weighting window is a raised cosine window such as a Hamming or Hanning or Kaiser-Bessel window ("Since they both amount to a scaled and shifted cosine function, they are also known as the raised cosine window." at page 139, subsection 5.4.6.1-Hann and Hamming Windows, paragraph 1).

***Response to Arguments***

16. Applicant's arguments with respect to claims 2-33, as detailed at pages 6-9 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mia M. Thomas whose telephone number is (571)270-1583. The examiner can normally be reached on Monday-Thursday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew W Johns/  
Primary Examiner, Art Unit 2624

/Mia M Thomas/  
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